

Date: Wed, 2 Feb 94 04:30:32 PST
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #17
To: Ham-Homebrew

Ham-Homebrew Digest Wed, 2 Feb 94 Volume 94 : Issue 17

Today's Topics:

 Antenna pre-amp design. Help!
 Build a simple 49 mhz reciever?
 IC info "042P"
 IC Info, "042P"
 Mail-order toroids, RF transistors, Help!
 Mystery components? Help?
PROJECT 14: THE WORLD'S SMALLEST TRANSMITTER
 VLF/ELF
 W7ZOI Progressive Receiver

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 1 Feb 1994 02:21:02 GMT
From: korie!newscast.West.Sun.COM!abyss.West.Sun.COM!sunspot!myers@decwrl.dec.com
Subject: Antenna pre-amp design. Help!
To: ham-homebrew@ucsd.edu

In article 1@ntuvax.ntu.ac.sg, asirene@ntuvax.ntu.ac.sg () writes:
>In article <2i68cr\$isj@reznor.larc.nasa.gov>, kludge@grissom.larc.nasa.gov (Scott
Dorsey) writes:
>> In article <1994Jan26.001852.3038@ke4zv.atl.ga.us> gary@ke4zv.atl.ga.us (Gary
Coffman) writes:
>>>
>>>In looking through my collection of ARRL Handbooks, I don't find a
>>>HF preamp until I go back to the 1962 edition. They have one using
>>>a 6AK5 pentode. This should give you an idea of the apparent lack

>>>of need for such circuits with more modern equipment.
>>
> Gary is probably right but then if you look in the MFJ catalog I
>am sure you will find one or two active antennas, which are quite expensive
>when you consider the number of components involved. Thus in case of the
>lack of a good antenna, active antennas/pre-amps still help.
>
>> Actually, I recommend this circuit... I built it when I was a kid and
>> hung it on the front of a modified Philco table radio and it worked very
>> nicely to the point where the rotten selectivity of the radio was a problem.
>> The manufacturer probably never expected anyone to tear windings off the
>> AM loopstick to move it to 80M.
>> --scott
>
> However, a valved pre-amp was not quite what I had in mind :) I was
>thinking more along the lines of the dual-gated mosfets or bi-polar types
>for broadband amplification as well as for narrow band. :)

OK. so shoot me if this is too simple.

Buy an MSA-1104 (this is in the large, easy-to-handle, plastic microwave package). I got some for \$3.25/ea last week. This is a 50ohm in/out MMIC with 12-13dB of gain up to the Ghz range. It is capable of over 50mW of output combined with a noise factor of below 3.6 in the HF bands.

With DC blocking caps of 1000pF, a 100uH choke and bias resistor for 50mA of bias current, you'll have a no-pain preamp with a pretty good dynamic range.

If you feel like working just a little, try using a broad-band grounded gate J310; you can get about the same gain and IP3 but a noise figure below 1dB. Use a small ferrite balun core with a turns ratio of 4:1 (16:1 Z ratio) on the output, use a 220 ohm bias resistor, go to town. I bought a stash of J310s for \$.34/ea; the additional components would make the total cost similar to the MSA-1104 circuit, with a lower NF.

On HF, a 3.5dB NF is not a big deal.

* Dana H. Myers KK6JQ, DoD 466 | Views expressed here are

*

* (310) 348-6043 | mine and do not necessarily *

* Dana.Myers@West.Sun.Com | reflect those of my employer

*

* This Extra supports the abolition of the 13 and 20 WPM tests *

Date: Tue, 1 Feb 1994 07:06:38 GMT
From: mentor.cc.purdue.edu!rock-opera.cc.purdue.edu!adkinsg@purdue.edu
Subject: Build a simple 49 mhz reciever?
To: ham-homebrew@ucsd.edu

Hi all!

I'm wanting to play with the signals from my cordless phone, and I would like to build a simple FM reciever so I can digitize the signals between the base and handset.

The phone is a sony spp-75 with 10 "channels" operating at 49 Mhz (not one of the new fangles 900 mhz jobbies) The phone is pretty smart and won't turn on unless it can "talk" to the base.

I have a good scanner (RS pro-2004) but my dad has it and won't give it back. :- (So I want to build a simple analog tuner out of perhaps a cheapie FM radio. The only thing I care about is having the ability to digitize the "braaaap" of base/handset communication. I'll only be a foot from the base/handset so reception range isn't critical either. (Altho the computer will be on so I'll have to account for that hash..)

Any suggestions??

Thanks!
Garry

--

Garry Adkins	adkinsg@symphony.cc.purdue.edu

USnail: 425-7 South River Rd.	GTENet: +1-317-743-8188

Date: 2 Feb 94 00:47:07 GMT
From: news-mail-gateway@ucsd.edu
Subject: IC info "042P"
To: ham-homebrew@ucsd.edu

A friend of mine has a swap meet special that uses an IC marked "042P". The IC seems to take a 46 to 63 mhz input, seems to be a mixer oscillator, and has a 10.7 mhz output. He needs to purchase a few more. The vendor is unknown. We would appreciate any leads to where we can purchase this IC and who the vendor might be?

Thanks and 73

Dave w6mik

Date: 2 Feb 94 00:58:04 GMT
From: news-mail-gateway@ucsd.edu
Subject: IC Info, "042P"
To: ham-homebrew@ucsd.edu

Subject: IC info "042P"

Text:

A previous message sent had an INCORRECT reply to address..sorry

=====

A friend of mine has a swap meet special that uses an IC marked "042P". The IC seems to take a 46 to 63 mhz input, seems to be a mixer oscillator, and has a 10.7 mhz output. He needs to purchase a few more. The vendor is unknown. We would appreciate any leads to where we can purchase this IC and who the vendor might be?

Thanks and 73

Dave,

w6mik

Even a cross referenced replacement is ok.

Date: Mon, 31 Jan 1994 18:04:08 GMT
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!newsserver.jvnc.net!raffles.technet.sg!ntuix!ntuvax.ntu.ac.sg!asirene@network.ucsd.edu
Subject: Mail-order toroids, RF transistors, Help!
To: ham-homebrew@ucsd.edu

Hi,

Can some kind hearted HAM help me order some parts from Amidon Associates Inc. I do not have the catalog so I do not know how much to send, how much for shipping, minimum order. This is for sending to Singapore where toroids are non-existent. I am also in need of MRF472 or MRF476. The toroids I am interested in are:-

	4	x	FT37-43 core
	2	x	FT50-43 core
	2	x	FB73-801 ferrite bead
73 de 9V Daniel		4	x T-50-6 core
	2	x	T-37-6 core

Would appreciate any help for ordering these stuffs. Need them fast. I need 2 MRF-472 (or MRF-476 if 472's are not available) and also a 14 mHz fundamental crystal. What is the fastest way I can get hold of

these? Tks.

73 de 9V Daniel

Date: 31 Jan 1994 09:03:41 -0800
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!agate!apple.com!
apple.com!not-for-mail@network.ucsd.edu
Subject: Mystery components? Help?
To: ham-homebrew@ucsd.edu

kludge@grissom.larc.nasa.gov (Scott Dorsey) writes:

>In article <1994Jan29.213947.1@aurora.alaska.edu> fsrla@aurora.alaska.edu writes:

>>The second one was blue and had the following letter, number sequence.

>> P
>> RN55D
>> 3572
>> FJ

>>What is this one?

>

>Two pins on it? Shaped like a disc capacitor?

The RN55D looks suspiciously like the designator for a precision metal film resistor. So is the blue colour. Assuming it is an axial device, instead of a disc shaped device as Scott has guessed, I would guess that this is a 35.7 kilo ohm resistor.

Don't you have an ohm guesser^H^H^H^H^H^H^H meter handy?

73,

Kok Chen, AA6TY
Apple Computer, Inc.

kchen@apple.com

Date: 1 Feb 94 22:31:02 GMT
From: ogicse!news.tek.com!gvgpsa.gvg.tek.com!gold.gvg.tek.com!grovmac.gvg.tek.com!
cleveland@network.ucsd.edu
Subject: PROJECT 14: THE WORLD'S SMALLEST TRANSMITTER
To: ham-homebrew@ucsd.edu

Re: PROJECT 14: THE WORLD'S SMALLEST TRANSMITTER

Are y'all forgetting the Fireball transmitter?
Battery, key, dip relay, xtal oscillator at 29.060, antenna.
I think this about as minimalist as anyone could go.

Grover
WT6P

Date: Mon, 31 Jan 94 09:17:41 CST
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!agate!
iat.holonet.net!vulcan!gary@network.ucsd.edu
Subject: VLF/ELF
To: ham-homebrew@ucsd.edu

Hi:

I have been looking for some reference material on VLF and have been
unable to find any. Can anyone point me to any material on VLF receivers
? I am especially interested in receiving (is it WWVB?) on 60 kHz, but
would also be interested in the unlicensed band at (what I think is 1750
meters).

I understand that there is an organization called the 'Longwave Club of
America'. Does anyone have an address for them ?

Thanks

Gary Tennyson
K04CY
gary@vulcan.com

Gary Tennyson
gary@vulcan.com

Date: 1 Feb 94 01:14:30 GMT
From: auratek!epacyna@uunet.uu.net
Subject: W7Z0I Progressive Receiver
To: ham-homebrew@ucsd.edu

Several weeks back I met someone in the newgroup who was going to
build the subject receiver.

I have something to send you, but have lost your address.

73

Ed W1AAZ

Date: Tue, 01 Feb 94 08:09:53 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!cs.utexas.edu!swrinde!emory!
rsiatl!jgd@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <1994Jan27.151922.7122@rz.uni-hildesheim.de>, <CKArGG.En5@cup.hp.com>,
<CKI3Gw.Gyq@cscsun.rmc.edu>1
Subject : Re: High Voltage Power Supply

dtiller@cscsun.rmc.edu (Dave Tiller) writes:

>: hmmm, 7kv x 2 amp, about 14kw on the plate....thats one healthy afterburner.
>: You should be worried about the coax feed also.

>Also worry about soft X-ray emission at 7kV - that kind of voltage with that
>amount of current pushing it should generate lots of low energy X-Rays.

Let's see. With an iron plate in the tube and 7kv, that should produce
X-rays with a peak energy in the 4 KeV range. That should be able to
penetrate oh, maybe 3 or 4 inches in air. It certainly wouldn't penetrate
the leaded glass envelope. Nor would it penetrate a ceramic/metal
tube envelope. A real hazard,huh? (NOT!) High current doesn't equate to
high energy. It only increases the intensity. A little knowledge is a
dangerous thing.

John

--
John De Armond, WD40QC, Marietta, GA jgd@dixie.com
Performance Engineering Magazine.

"Dr. Kevorkian, you're needed in the Oval Office."

Date: Sat, 29 Jan 1994 01:19:31 +0000
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!pipex!demon!
dis.demon.co.uk!djwhome.demon.co.uk!david@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <16fT02SH5bd501@JUTS.ccc.amdah1.com>, <arog.759386054@BIX.com>,

<654f021a5b3Z01@JUTS.ccc.amdahl.com>

Subject : Re: IBM-PC Shareware for PCB Photo work

easytrax is on all Simtel sites (e.g. oak.oakland.edu) and on the Simtel
CDROM. The following is from the May 93 CD (info@cdrom.com).

Directory MSDOS/CAD/

Filename	Type	Length	Date	Description
=====				
EASYTRAX.ZIP	B	471281	930318	Protel's powerful PCB layout, freeware version

Other related items in the same directory.

GCPVU.ZIP	B	320423	911104	Professional quality CAD tool for PCB design
PADSLIB.ZIP	B	461934	920212	PADS library for PADSPCB.ZIP and PADSLOG.ZIP
PADSPCB.ZIP	B	988785	920212	PADS PCB (printed circuit board) layout pgm
PCB.ZIP	B	90057	890325	Small PC board CAD pgm w/'C' src, 286 only
PCROUTE2.ZIP	B	97546	900413	Computer aided design, printed circuit boards
PFWDEM10.ZIP	B	948420	920805	Protel PCB for Windows DEMO. Reqs Win 3.0/3.1
QR15R3US.ZIP	B	218259	930219	Easy to use PCB & schematic design system
QRUSA.ZIP	B	116834	920522	QuickRoute: Circuit board / diagram design

--

David Woolley, London, England

david@djwhome.demon.co.uk

End of Ham-Homebrew Digest V94 #17
